

## Industrial Grade

# Oval Gear Enhanced Electronic Meter

## Owner's Manual - Model LM51DN - 1/2"

### DESCRIPTION

The model LM51DN electronic lube meter is designed specifically to dispense motor oils (SAE 5...50), gear oils (SAE 80...240), automatic transmission fluid, antifreeze (Ethylene Glycol), brake fluid, windshield wiper fluid, and engine coolant solutions. Modular design, low cost, lightweight and rugged make the LM51DN the best choice for overhead reel systems.

The electronic register module contains a microprocessor board powered by a lithium battery. It can be programmed to dispense in pints, quarts, liters, or US gallons and will totalize in liters or US gallons. The meter calibration factor is determined during factory test. The meter can be recalibrated in the field for fluids or different viscosity if required. A 6-digit liquid crystal display, accurate to the second decimal place, shows the exact amount of fluid dispensed. The entire register module is protected from the wear and tear of normal shop use by a rugged, glass filled, shock resistant, nylon housing.



### OPERATION

As fluid passes through the metering chamber by entering the inlet port, the internal gears rotate, forcing the fluid to exit through the outlet port. Each rotation of the gear displaces a given volume of fluid.

The display shows the amount of fluid dispensed since the last time the reset button was pushed. Pushing the reset button will reset the display to zero for the next dispense.

#### To Change the Unit of Measure

1. Press **TOTAL** three times followed by **RESET** three times in a time frame of under 2 seconds. The active unit of measure symbol will flash when you have entered programming mode.
2. Press **RESET** until desired unit of measure flashes on the display.
3. To exit the programming mode, press and hold **RESET** and **TOTAL** simultaneously for 3 seconds.

**NOTE:** Changing any unit of measure will reset the non-resettable and resettable totalizers.

#### To Program the Scale Factor

1. Press **TOTAL** three times followed by **RESET** three times in a time frame of under 2 seconds. The active unit of measure symbol will flash when you have entered programming mode.
2. Press **TOTAL** to advance to the first digit of the scale factor.
3. The selected digit will blink. Push **RESET** to change the value.
4. When the proper value displays, push **TOTAL** to move to the next digit.
5. Continue until the correction factor has been entered.
6. To exit the programming mode, press and hold **RESET** and **TOTAL** simultaneously for 3 seconds.

The display will flash three times and then go blank to indicate the changes have been saved.

## FEATURES

- 1500 psi rating
- NPT Threads
- Large 6-digit LCD display with two decimal-point precision
- Dispense total display in pints, quarts, US gallons or liters
- Unit of measure selectable from the front of register
- Totalization in US gallons and liters
- Resettable and non-resettable totalizer
- Display operation temperature range  $-4...140^{\circ}\text{F}$  ( $-20...60^{\circ}\text{C}$ )
- Low battery indicator
- Long life field replaceable top load battery
- Accuracy of  $\pm 0.5\%$
- Calibration factor programmable from front of register
- Calibration factor saved in non-volatile memory

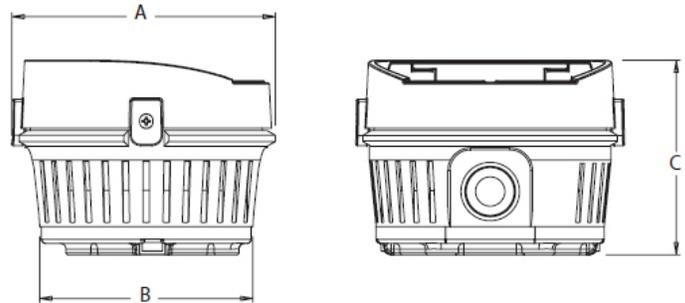
**NOTE:** The use of meters in applications other than those described in this material may result in inaccuracy and possible meter failure. Each meter is designed for use with a specific type of fluid. Do not use petroleum-based products in a meter designed for water-based fluids, or water-based fluids in a meter designed for petroleum-based products. It is also important that fluids be properly filtered before entering the meter. Foreign particles will cause inaccuracy or malfunction of the meter. Warranties are void in the circumstances described above.

## SPECIFICATIONS

Meter Model:	LM51DN
Maximum Flow:	8 GPM (30 LPM)
Minimum Flow:	0.25 GPM (1 LPM)
Operating Pressure (Max.):	1500 psi (103 bar)
Operating Pressure (Min.):	5 psi (0.35 bar)
Operating Temperature (Max.):	140° F (60° C)
Operating Temperature (Min.):	-4° F (-20° C)
Accuracy:	$\pm 0.5\%$
Weight:	2.0 lb. (0.9kg)
Inlet & Outlet Connections:	1/2" NPTF

## DIMENSIONS

Dimension	Size
A	4.04 in. (102.6 mm)
B	3.27 in. (83 mm)
C	2.99 in. (75.8 mm)



### Limited Warranty Policy

Great Plains Industries, Inc. 5252 E. 36<sup>th</sup> Street North, Wichita, KS USA 67220-3205, hereby provides a limited warranty against defects in material and workmanship on all products manufactured by Great Plains Industries, Inc. This product includes a 1 year warranty. Manufacturer's sole obligation under the foregoing warranties will be limited to either, at Manufacturer's option, replacing or repairing defective Goods (subject to limitations hereinafter provided) or refunding the purchase price for such Goods theretofore paid by the Buyer, and Buyer's exclusive remedy for breach of any such warranties will be enforcement of such obligations of Manufacturer. The warranty shall extend to the purchaser of this product and to any person to whom such product is transferred during the warranty period.

The warranty period shall begin on the date of manufacture or on the date of purchase with an original sales receipt. This warranty shall not apply if:

- the product has been altered or modified outside the warrantor's duly appointed representative;
- the product has been subjected to neglect, misuse, abuse or damage or has been installed or operated other than in accordance with the manufacturer's operating instructions.

To make a claim against this warranty, contact the GPI Customer Service Department at 316-686-7361 or 888-996-3837. Or by mail at:

Great Plains Industries, Inc.  
5252 E. 36<sup>th</sup> St. North,  
Wichita, KS, USA 67220-3205

If you are outside North or South America contact:

Flomec  
1/16 Atkinson Road,  
Taren Point NSW 2229, Sydney, Australia

The company shall, notify the customer to either send the product, transportation prepaid, to the company at its office in Wichita, Kansas, or to a duly authorized service center. The company shall perform all obligations imposed on it by the terms of this warranty within 60 days of receipt of the defective product.

GREAT PLAINS INDUSTRIES, INC., EXCLUDES LIABILITY UNDER THIS WARRANTY FOR DIRECT, INDIRECT, INCIDENTAL AND CONSEQUENTIAL DAMAGES INCURRED IN THE USE OR LOSS OF USE OF THE PRODUCT WARRANTED HEREUNDER.

The company herewith expressly disclaims any warranty of merchantability or fitness for any particular purpose other than for which it was designed.

This warranty gives you specific rights and you may also have other rights which vary from U.S. state to U.S. state.

Note: In compliance with MAGNUSON MOSS CONSUMER WARRANTY ACT - Part 702 (governs the resale availability of the warranty terms).

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